

CLAIMS

1. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS, this profile for the assembly of cabinets/enclosures, boxes or panel boards (100) of the indoor or outdoor type, normally in the form of a metallic box with side closings (101), including one or more tilting doors (102), whereas such closings, including the doors, are normally made of substantially thin metallic sheets, consequently the assembly of the set implies the use of a structure (103) of metallic profiles (104) which, on the outside, constitutes the means of support for the closings and accessories, while on the inside, the same structure configures the struts for the assembly of the components and electric and electronic devices; characterized by the fact that this profile (104) presents a cross section with a geometry defined by a central core in the tubular shape with a quadrangular section (105), where the vertex (106) is oriented to the inside of the cabinet (100), while the opposite vertex (107) is oriented to the outside of this cabinet (100), and these two vertexes are formed by single walls, which is not the case of the other two remaining vertexes (108) and (109), which are defined by the joining of the sheet that forms the first two vertexes (106-107) and from this point on, the double walls (110) are extended in a coplanar position in relation to the adjacent walls (106a-106b) of the vertex (106), forming opposite rims (111a 111b), whose ends are perpendicularly folded forming short ends (112) and (113) that, besides being grooved (114), are distanced in parallel from the adjacent walls (107a-107b) of the vertex (107), whose wall (107a) includes a projection perpendicularly oriented to the outside, configuring a perpendicular rim (115).
2. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1, characterized by the fact that the adjacent walls (107a) and (107b), which are located outside the cabinet (100), are completely blind.
3. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1, characterized by the fact that the adjacent walls (106a) and (106b), which are located inside the cabinet (100), distribute rows of openings and holes of variable shapes and sizes (116).
4. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1, characterized by the fact that the rim (115) is emptied by rows of variable holes and openings (117).
5. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1,

characterized by the fact that, in the structure (103), the union of various profiles (104) all those rims (111ab) and (115) are facing the outside and combine for all the sides of this structure (103) to be symmetrically equal, including the top and bottom side.

**6. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES**

5 **FOR THE ASSEMBLY OF CABINETS/ENCLOSURES**, in accordance with claim 1, characterized by the fact that the folded ends (113) form a fitting rail for an "a" type gasket (118).

10 **7. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES**, in accordance with claim 1, characterized by the fact that the same rims 115 configure fixing points for the use of screws (122) to fix the closings (101), where the sealing uses a profile or "a" type gasket applied to the corresponding folds (113).

15 **8. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES**, in accordance with claim 1, characterized by the fact that the ends (112) configure flat props for a sealing cord (123), fixed to the inside of the closing (101) or on the front of the end (112).

20 **9. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES**, in accordance with claim 1, characterized by the fact that when two structures are joined side by side, the profile (104) has its ends folded in a straight angle (113) adjusted in an opposite position manner or side by side, with a sealing (123) in the middle, maintained with a certain pressure in conjunction with an accessory or flat bar bracket folded in "U" (124) which, in conjunction with screws (125), establishes an interconnection between the two tubular cores (105), whereas this interconnection is complemented by a rod (126) that also interconnects the two rims (115) with the use of other screws (125).

25 **10. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES**, in accordance with claim 1, characterized by the fact, in a first preferred embodiment, the profile (104) and its rim (115a) is formed at exactly the point defined by the vertex (107), in a coplanar position in relation to the wall 107b and perpendicular to the wall (107a).

30 **11. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES**, in accordance with claim 1, characterized by the fact, in a second preferred embodiment, the profile (104), presents its rim (111) perpendicularly folded outwards (113a).

35 **12. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF**

STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 10, characterized by the fact that when the profile (104) forms the top or bottom part of the cabinet (100), the rims folded outwards (113a) configure an assembly support board for the bottom and roof of such cabinet (100).

5 13. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1, characterized by the fact that in a third preferred embodiment for the profile (104), its end (112a) is perpendicularly folded outwards.

10 14. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1, characterized by the fact that in a fourth preferred embodiment for the profile (104), its wall (107b') presents its vertex (107') with an internal angle substantially larger than 90 degrees, and its intermediary rim (115') has a second perpendicular fold, also distributing sundry holes and openings (117') and (117''), so that this rim (115') has two fixing rows in a straight angle.

15 15. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1, characterized by the fact that in a fifth preferred embodiment, the profile (104) has the tubular core (105') with only one wall (106b') adjacent to the vertex (106') which, in this case, presents a double wall, and has only one side (106a') completely open in the form of access to 20 the two sides of the openings (116') existent in the wall (106b).

25 16. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1, characterized by the fact that in a sixth preferred embodiment, the profile (104) with an open core presents its rim (115') with a fold (117), forming two adjacent sides with openings (117'-117'') positioned perpendicularly in relation to each other.

30 17. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with claim 1, characterized by the fact that in a seventh preferred embodiment, the profile (104) presents its transversal geometry defined by two independent folded profiles of sheets welded on each other, one (127) inside the cabinet and the other (128) outside the cabinet, the first incorporating the vertex (106) and respective adjacent walls (106a) and (106b) with the openings (116), while the other includes the rim (115) with the openings (117) whereas this profile includes the ends or rims (112) and (113) perpendicularly folded inwards or outwards.

35 18. IMPROVEMENT IN METALLIC PROFILE FOR THE COMPOSITION OF STRUCTURES FOR THE ASSEMBLY OF CABINETS/ENCLOSURES, in accordance with

claim 16, characterized by the fact that the profile (104) is formed by two folded sheets (127-128) with walls (106a) and (106b) of equal or different lengths.